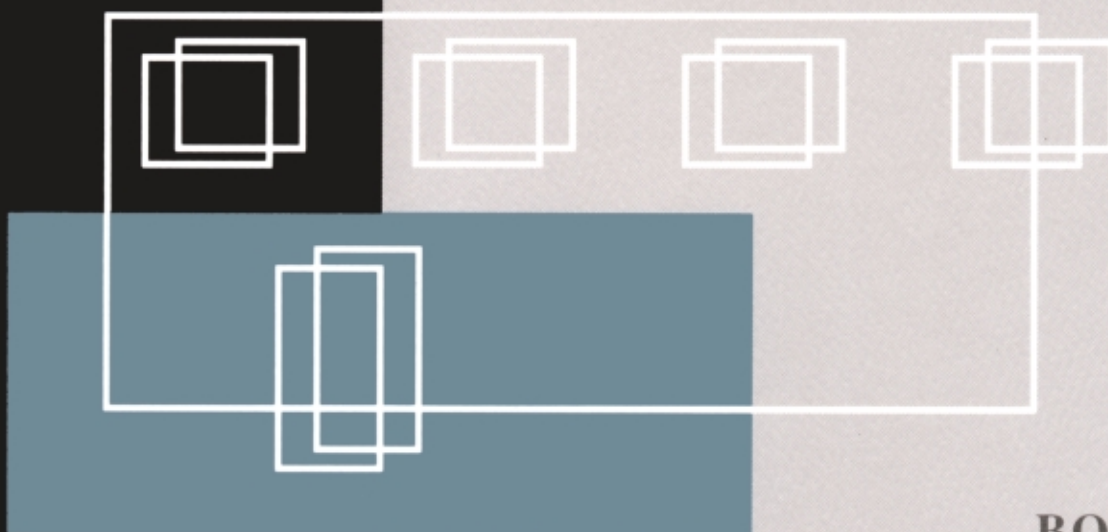
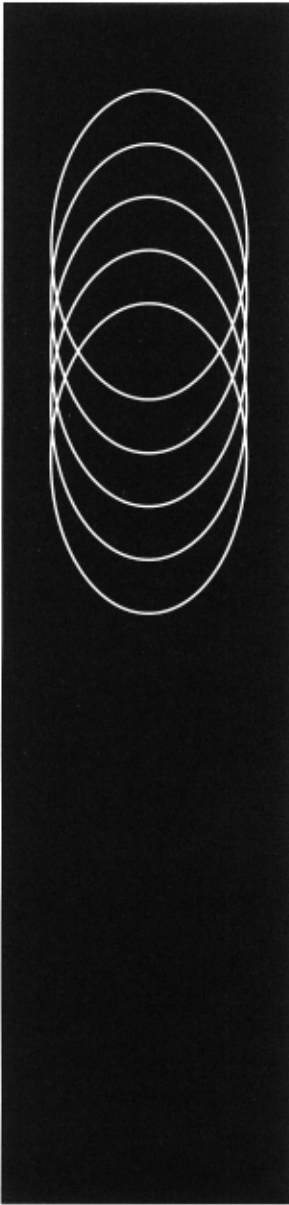


Appraising an HIV Curriculum



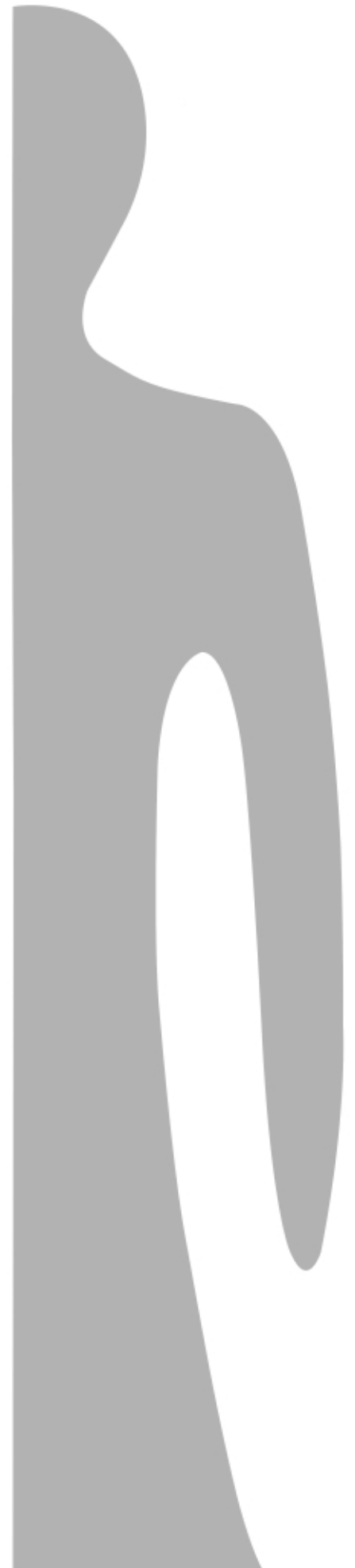
BOOKLET 3

DIVISION OF ADOLESCENT AND SCHOOL HEALTH
NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION
AND HEALTH PROMOTION
CENTERS FOR DISEASE CONTROL



APPRAISING AN HIV CURRICULUM

**W. James Popham
Elizabeth A. Hall**



This booklet was prepared by IOX Assessment Associates under Contract No. 200-88-0683 with the Division of Adolescent and School Health, Centers for Disease Control. Preliminary draft: May 1992.

TABLE OF CONTENTS

	Page
INTRODUCTION	1
GUIDELINES	
Guideline 1: The content of an HIV education program should be chosen after considering the current status of students	1
Guideline 2: A preliminary appraisal of an HIV curriculum's likely success can be determined by reviewing the curriculum's internal characteristics	2
Instructional psychology	3
Functional knowledge	4
Vulnerability perceptions	5
HIV-related attitudes	6
Interpersonal skills	7
Involvement of parents and guardians	8
Adequate duration	8
A checklist	9
Guideline 3: Attention should be given to the degree to which the HIV curriculum has been implemented as planned	9
Guideline 4: An HIV curriculum should be evaluated primarily on the basis of its impact on students	10
CONCLUSION	11
SELECTED REFERENCES REGARDING SOCIAL SCIENCE BEHAVIOR- CHANGE THEORIES	13
JUDGING AN HIV CURRICULUM BY ITS INTERNAL CHARACTERISTICS	15
SAMPLE CURRICULUM IMPLEMENTATION SURVEY	19

Introduction

Perhaps the most important element of any HIV education program is the curriculum it employs. The curriculum consists of the knowledge and skills to be emphasized in the program as well as the instructional activities chosen to promote students' mastery of that knowledge and those skills. The curriculum of an HIV education program, in short, deals with what gets taught and how it gets taught.

If a school district's educators decide to install a new HIV education program, or if they wish to review the quality of an existing HIV education program, the caliber of the program's curriculum is pivotal. In this booklet, a set of four guidelines will be offered to educators who wish to scrutinize a proposed or existing curriculum for HIV education.

When appraising a curriculum for an HIV education program, educators should be sure that the curriculum is consistent with district, local, and state policies regarding HIV or sexuality education. In addition, district officials may wish to establish a curriculum review committee consisting of teachers, administrators, nurses, health department staff, other staff with expertise in health education, parents, students, and community leaders. Such a committee can be called upon to review the curricular content and determine the degree to which it is consonant with local community values.



Guideline 1: The content of an HIV education program should be chosen after considering the current status of students.

Analyze students' needs.

The history of education is replete with examples of instruction designed to promote students' mastery of knowledge that the students already possessed. The teachers in those instances simply misjudged what the students already knew. Similarly, there are numerous examples of instructional efforts that failed to provide students with important knowledge or skills that they did not possess. In this second type of curricular error, the teachers erroneously assumed that the students knew content that, in fact, they did not.

The way to avoid these two curriculum-planning errors is to determine the objectives and curricular content of an HIV education program after assessing what the preinstruction status of

students actually is. By identifying students' preinstruction status regarding knowledge, skills, attitudes, and risk behaviors, the architects of HIV education programs can make sure they incorporate needed content while, at the same time, avoiding redundant content.

It is really quite simple to get a fix on students' preinstruction status with respect to potential content for an HIV curriculum. All we have to do is assess the students with measurement devices that focus on the content of most interest, for example, students' HIV-related knowledge, attitudes, skills, and behaviors. Other booklets in this handbook provide a variety of appropriate assessment instruments for students in grades 5-7 and grades 7-12.

It is obvious that students differ from community to community with respect to their HIV-related knowledge, attitudes, skills, and behaviors. This initial guideline emphasizes the importance of designing an HIV curriculum for the specific students to be taught.

It is also possible to use more qualitatively focused approaches to gain an idea of students' current HIV-related knowledge, skills, attitudes, and behaviors. Individual interviews or focus group interviews can provide illuminating insights. Ideally, such qualitative approaches would be used in conjunction with more quantitatively oriented assessment approaches such as the self-report instruments found elsewhere in the handbook.

Once a clear estimate is garnered of students' current status, then more appropriate instructional objectives can be identified for the program as well as a set of instructional procedures to accomplish those objectives. This first guideline emphasizes the need to determine what the particular needs of the students are before selecting or designing an HIV curriculum.

Guideline 2: A preliminary appraisal of an HIV curriculum's likely success can be determined by reviewing the curriculum's internal characteristics.

In the final analysis, an HIV curriculum's quality must be judged by its impact on students. However, before that evaluation of the curriculum takes place, it is possible to make a preliminary evaluation of a given HIV curriculum based exclusively on the curriculum's internal characteristics. If a curriculum is found wanting, it is still possible that when implemented it might be successful. But it's not likely. It is also possible that an HIV curriculum that contains a host of positive internal characteristics may not prove effective when implemented. However, this scenario is less likely.

Judge the program's characteristics to determine its probable effectiveness.

There are seven internal characteristics that an HIV curriculum may or may not embody. The seven internal characteristics deal with (1) instructional psychology, (2) functional knowledge, (3) vulnerability perceptions, (4) HIV-related attitudes, (5) interpersonal skills, (6) involvement of parents and guardians, and (7) adequate duration.

These internal characteristics are based on (1) findings drawn from research dealing with other aspects of health education and (2) the experiences of educators in providing HIV education programs during the past several years. Because the seven characteristics are based on empirical evidence, educators who adhere to these characteristics can increase the likelihood that their HIV education program will influence the behaviors that place students at risk of HIV infection.

Instructional psychology: An appropriate HIV curriculum adheres to sound principles of instructional psychology.

As with any educational program, HIV education should be well grounded in the fundamentals of instructional psychology. During the past several decades, instructional psychologists have assembled an effective array of research-based principles that will tend to yield positive results for students. A number of correlational and experimental studies have shown, for example, that students who receive more "time on task" will outperform those who do not. Thus, if an HIV education program attempts to promote students' acquisition of interpersonal skills such as the ability to resist peer pressure without sacrificing friendships, the program's curriculum must provide ample opportunities for the students to practice these skills.

A teacher who simply talks at students is likely to have little impact on the students' acquisition of knowledge, skills, or attitudes. On the other hand, a teacher who provides students not only with clear explanations but also with sufficient amounts of relevant practice is likely to promote positive changes in those students.

Most health educators are familiar with the importance of such principles as (1) communicating instructional objectives to students in understandable language, (2) activating students' prior knowledge by providing reviews of such knowledge and skills, (3) modeling desired behavior so that students clearly understand what is sought, (4) providing students with closely monitored guided practice, (5) supplying ample independent practice when students are ready for such practice, (6) providing students with immediate

knowledge of results regarding their efforts, (7) asking questions and dealing with responses in a manner that maximizes students' participation, and (8) summarizing main points from lessons or longer instructional sequences. Although by no means exhaustive, instructional principles such as these can substantially boost the effectiveness of an instructional sequence. HIV educators who are not conversant with such instructional principles should strive to become so. Regardless of the instructional procedures being employed (lectures, discussions, small group work, etc.), the application of proven principles of instruction will typically enhance the effectiveness of any HIV education program. HIV education programs that fail to incorporate sound instructional principles are almost certain to be ineffective.

Functional knowledge: An appropriate HIV curriculum promotes students' functional knowledge about HIV.

Practical information about HIV, such as the methods of HIV transmission and the personal consequences of AIDS and HIV infection, is referred to as *functional* knowledge. *General* HIV knowledge, on the other hand, consists of information such as how HIV affects the immune system, the history of AIDS, or information about the global AIDS pandemic. General HIV knowledge is not the essential knowledge that students must acquire to prevent becoming infected with HIV. Functional knowledge about how HIV is and is not transmitted, however, will help students recognize high-risk behaviors and can provide the information base students need to avoid these behaviors. Therefore, the inclusion of functional knowledge should be considered an integral part of any HIV curriculum.*

Functional knowledge about HIV transmission should be comprehensive enough to allow students to distinguish facts from myths about how HIV is transmitted. Information identifying risk behavior and ways of not becoming infected with HIV should address the broad range of behavior exhibited by young people. HIV curricula should be developed in ways that will enable and encourage young people who have not engaged in sexual intercourse or who have not used illicit drugs to continue to abstain

*Recommendations for suitable content for HIV education programs, according to three grade-ranges is described in Centers for Disease Control, Guidelines for effective school health education to prevent the spread of AIDS, *MMWR* 1988; 37(S-2).

from both activities. For young people who have engaged in sexual intercourse or have injected illicit drugs, school programs should enable and support them in abstaining from such behavior in the future. For young people who are unwilling to adopt the most effective approach to eliminating their risk of HIV infection, school systems, in consultation with local review panels, should provide information and skills education on preventive types of behavior that should be practiced by persons with an increased risk of acquiring HIV infection. These include (1) using a latex condom with spermicide if they engage in sexual intercourse, (2) not sharing needles or other injection equipment, (3) seeking treatment for drug addiction, and (4) seeking HIV counseling and testing if HIV infection is suspected.

To reiterate, this second internal characteristic focuses on the importance of including the kind of knowledge in an HIV curriculum that is likely to influence students' HIV-risk behaviors. To the extent that an HIV curriculum promotes general rather than functional knowledge, students' attention to behavior-relevant knowledge may be diminished.

Vulnerability perceptions: An appropriate HIV curriculum helps students realistically appraise their personal vulnerability regarding HIV infection.

An appropriate HIV curriculum should provide students not only with knowledge but also with motivation to avoid engaging in high-risk behaviors. Students will be more motivated to change their behavior if they believe they are personally vulnerable to HIV infection. The curriculum should first make students aware, as clearly and directly as possible, of the risks of HIV infection for teenagers and the consequences of becoming infected. The curriculum should then include lessons that enable students to assess their own risk of HIV infection and to understand the social and health consequences of their participation in HIV-risk behaviors. Sufficient instructional energy should be committed to this topic so that students will sense their personal vulnerability to HIV infection.

Students should be particularly discouraged from perceiving AIDS as a disease afflicting only other people (for example, homosexual males, sexually promiscuous adults, or users of injected drugs). Because of the lengthy latency period associated with HIV, students may have encountered few if any teenagers who actually have AIDS. As a consequence, many students improperly assume that AIDS is "somebody else's" disease. An appropriate HIV

curriculum will address this issue directly enough to help students accurately perceive their own HIV at-risk status.

Among the instructional strategies that can be employed to promote more realistic perceptions of students' HIV-related vulnerability are (1) written descriptions or videotaped accounts of young people who have become infected with HIV, (2) panel presentations by peers, particularly those who are familiar with friends or family members infected with HIV, and (3) presentations by persons with AIDS who could personalize the threat of HIV infection for students.

An HIV education curriculum that fails to devote attention to students' perceived vulnerability to HIV infection is not likely to influence students' HIV-risk behaviors.

HIV-related attitudes: An appropriate HIV curriculum promotes positive attitudes toward methods of avoiding HIV-risk behaviors.

An appropriate HIV curriculum should foster attitudes that include (1) confidence in one's ability to recognize and avoid high-risk situations and (2) the disposition to set positive goals and resist both social pressure and personal temptations to deviate from those goals. Curricular material that promotes sexual abstinence should be included. Because not all students, particularly at the upper grade levels, will be sexually abstinent, curricular content dealing with condom use should also be provided. Finally, curricular materials should be used that endorse abstinence from intravenous drug use or other forms of needle sharing.

Although students' attitudes are generally believed to play a prominent role in modifying their behaviors, many instructional programs give little, if any, attention to promoting student attitudes conducive to the reduction of HIV risk. One cannot assume that students' attitudes will somehow change as a consequence of more cognitively oriented instructional activities. Instead, empirical evidence indicates that meaningful shifts in attitudes must be systematically addressed during an instructional program.

Attitudinally oriented instructional objectives should be identified in advance for particular lessons (or series of lessons). Instructional activities might be designed, for example, to help develop more favorable attitudes toward delaying the onset of sexual activities. Because modeling has been shown to be a potent influencer of one's attitudes, it may be helpful to show films or videotapes of teenagers who advocate (1) abstinence from sexual

intercourse, (2) abstinence from drug use, or (3) the use of condoms by those who are sexually active. Similarly, because peer values often influence the attitudes of teenagers, student discussions regarding the perils of certain HIV-risk behaviors can sometimes modify students' risk-related attitudes.

Students' perceptions can sometimes prove useful when educators attempt to modify HIV-related attitudes. Student misperceptions of peer behavior are widespread. Adolescents often overestimate, for example, the extent to which other adolescents consume alcohol, use drugs, and engage in sexual activities. Because young people behave, at least in part, as a consequence of their inaccurate perceptions of peer behavior, it is useful to provide estimates of actual peer behavior from regional or national surveys. Younger teenagers can be made aware that the majority of students their age are not sexually active, while older teenagers can be given behavior estimates indicating that there are now increasing percentages of sexually active adolescents who use condoms. Such reality appraisals can be useful in shifting students' attitudes regarding HIV infection.

Although people's attitudes are influenced by a variety of factors, and although appropriate HIV-related attitudes may be formed serendipitously by students during an HIV education program, such attitudinal shifts should not be left to chance. Because students' attitudes toward HIV-risk behaviors are important determinants of students' actual behaviors, those attitudes must be seriously addressed in the curriculum.

Interpersonal skills: An appropriate HIV curriculum emphasizes interpersonal skills relevant to students' avoidance of HIV-risk situations.

Ample evidence demonstrates that health education programs that teach students the interpersonal skills (e.g., refusal skills and communication skills) needed to avoid risk situations have a greater likelihood of modifying students' subsequent risk-related behaviors than programs in which such skills are not promoted. Relevant interpersonal skills for HIV education include methods for identifying social situations that can place students at risk of HIV infection, avoiding such situations, escaping from them, and taking protective measures when students are otherwise unable or unwilling to escape them.

Because of the importance of these interpersonal skills to students' ultimate avoidance of HIV infection, the skills must be

clearly explained and effectively modeled. Moreover, as previously indicated, students must receive enough guided and independent practice to master these social skills and be able to transfer them to real-life situations.

For the promotion of students' interpersonal skills, an instructional sequence such as the following might be appropriate: (1) describe the skill, (2) model the skill, (3) provide guided practice in using the skill, (4) provide independent practice in using the skill, and (5) encourage use of the skill in real-world settings.

The acquisition of a skill such as declining a friend's invitation to take part in risky behaviors without alienating the friend does not take place instantly. It takes substantial practice to become adept in the use of interpersonal skills. Thus, an appropriate HIV education curriculum should provide extended opportunities for students to understand, rehearse, practice, and transfer their HIV-related interpersonal skills.

Involvement of parents and guardians: An appropriate HIV curriculum includes activities to involve parents and guardians in the learning process.

Well-designed HIV curriculum materials should provide concrete ways to involve parents and guardians in ensuring that their child avoids HIV infection. Parents and guardians are typically the persons most concerned about the health and well-being of their child. Given the opportunity, they can add substantially to the efforts of the school in encouraging their child to avoid HIV-risk behaviors. Further, because HIV instruction must deal with sensitive and value-laden topics such as sexual behaviors, parents are in the best position to discuss their values and expectations.

Involvement of parents and guardians can take numerous forms such as homework assignments in which students watch an HIV-relevant program or read information about HIV infection and discuss the material with their parents and guardians. Parents and guardians can also be provided with materials that can help them to initiate discussions with their child about HIV prevention.

Adequate duration: An appropriate HIV curriculum is of sufficient duration for students to gain the knowledge and skills necessary to change their HIV-risk behaviors.

Studies have shown that meaningful changes in students' behaviors can rarely be brought about by short-duration instruc-

tional programs. Although educators may be able to provide students with knowledge in an hour or two of instruction, behavioral modification is seldom possible in such a short time.

No definitive research evidence has established the minimum length of an effective HIV education program. However, the results of investigations in other health-related areas suggest that an instructional program must last closer to 12-15 hours than to 1-3 hours to have a realistic chance to modify students' behavior.

If HIV education is included as part of a comprehensive school health curriculum emphasizing the acquisition of interpersonal skills, then fewer instructional hours need be committed specifically to HIV. Ideally, once the initial HIV education program is offered, periodic booster sessions should be carried out at later grade levels.

This seventh characteristic is applicable to a variety of learning outcomes that we wish our students to achieve. Students don't learn how to do their multiplication tables in a few hours or how to compose essays in a single day. It takes instructional time to accomplish worthwhile instructional outcomes.

A checklist

The seven characteristics presented in this second guideline are intended to provide HIV educators with a set of criteria against which to gauge the likely effectiveness of an HIV curriculum. The more fully these characteristics are embodied in the curriculum for an HIV education program, the greater the likelihood of the program's success.

One appropriate way to view the guidelines is to regard them as a set of checkpoints to consider when judging the quality of an extant HIV curriculum or one under development. To assist HIV educators in reviewing the internal characteristics of their curricula, a rating form is provided on page 15.

Guideline 3: Attention should be given to the degree to which the HIV curriculum has been implemented as planned.

In many instances a first-rate curriculum may have been created, yet when actually implemented, it appears ineffectual. The curriculum that takes place in the classroom, in such cases, is frequently a far cry from what had been contemplated by its architects. The HIV curriculum that has been planned may not be the HIV

Determine how the program was delivered.

curriculum that is delivered in the classroom. Thus, this third guideline suggests that serious attention must be given to the fidelity of curricular implementation. Careful efforts should be devoted to the determination of how well the curriculum was actually implemented.

Although it is possible to implement this guideline in informal ways, such as by an evaluator's occasionally visiting classrooms or speaking with teachers, there is much to be said for approaching the curricular implementation task more systematically.

A survey is provided on page 19 to illustrate how someone might poll teachers to see if their implementation of an adopted curriculum was suitable. Because the illustrative survey is tied to a specific, albeit fictional, HIV curriculum, it would be necessary to particularize any such survey so that it deals with the curriculum involved.

Although planned curricula are never implemented perfectly, a judgment must be made about whether the curriculum was implemented with reasonable fidelity. Surveys such as the one included at the end of this booklet and unannounced observations of teachers' actual classroom instruction can be helpful in making such a judgment.

In too many instances it is determined that an educational program has been unsuccessful, yet the cause of that failure is unclear. Is it a deficiency in the curriculum itself or a deficiency in the way that the curriculum was implemented? If this guideline is followed, it will be possible to answer that question accurately.

Guideline 4: An HIV curriculum should be evaluated primarily on the basis of its impact on students.

Judge HIV education by its effects.

Although Guideline 2 emphasized the importance of appraising the internal characteristics of an HIV curriculum in order to form a preliminary estimate of the curriculum's likely effectiveness, this fourth guideline reminds us that, in the end, the consequences of a curriculum's usage must determine the curriculum's effectiveness.

Thus, attention must be given to ascertaining the effect of an HIV curriculum on students' knowledge, attitudes, skills, and behaviors. In the initial booklet in this handbook, *Evaluating HIV Education Programs*, suggestions are offered for gauging the impact of an HIV curriculum on students.

Conclusion

The appraisal of HIV curricula helps assure that school-based HIV education programs are delivered in the most effective and up-to-date manner possible. In reviewing HIV prevention curricula, school personnel together with local review panels should evaluate aspects of the curriculum that (1) address the identified needs of the students within the schools, communities, or regions; (2) examine the quality and completeness of the curriculum's components (i.e., instructional principles, functional knowledge, self-perceptions, attitudes, involvement of parents and guardians, skills, and duration); (3) determine the degree of fidelity between the curriculum and its application in the classroom; and (4) assess the impact of the curriculum on students' knowledge, attitudes, and behavior.

Selected References Regarding Social Science Behavior-Change Theories

A number of social science behavior-change theories are particularly relevant to health education. The curriculum appraisal guidelines presented in this booklet reflect important dimensions of several of these theories. Prominent among these are the social learning/social cognitive model, the theory of reasoned action, the health belief model, the transtheoretical model, the precede-proceed model, and protection motivation theory. Because these theoretical constructs provide insights about how and why people change their health behaviors, they can prove helpful in the fashioning of appropriate HIV curricula. The following is a list of further readings regarding these six behavioral models.

Social Learning/Social Cognitive Model

- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1989). Self-efficacy mechanism in physiological activation and health-promoting behavior. In J. Madden, S. Matthyse, & J. Barchas (Eds.), *Adaptation, learning and affect*. New York: Raven Press.
- Bandura, A. (1990). Perceived self-efficacy in the exercise of control over AIDS infection. *Evaluation & Program Planning* 13(1), 9-17.
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior & Human Decision Processes*, 50(2), 248-287.

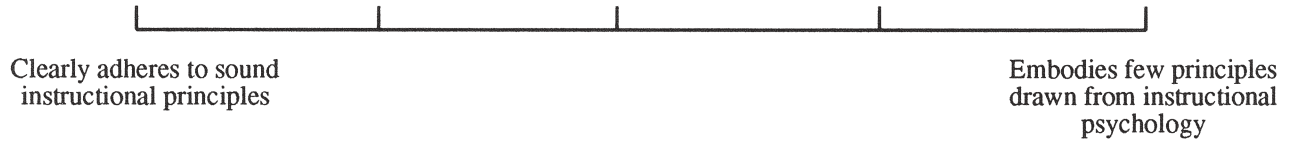
Theory of Reasoned Action

- Ajzen, I. (1988). *Attitudes, personality, and behavior*. Dorsey Press: Chicago.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior & Human Decision Processes*, 50(2), 179-211.
- Fishbein, M. & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.

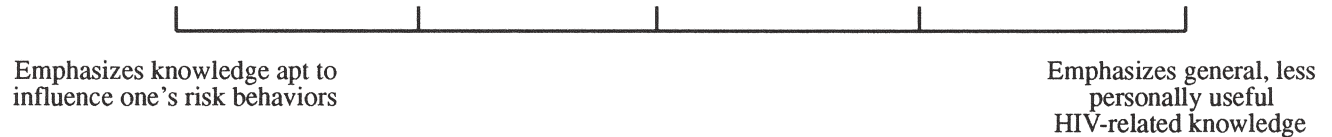
Judging an HIV Curriculum by Its Internal Characteristics

Curriculum under consideration: _____

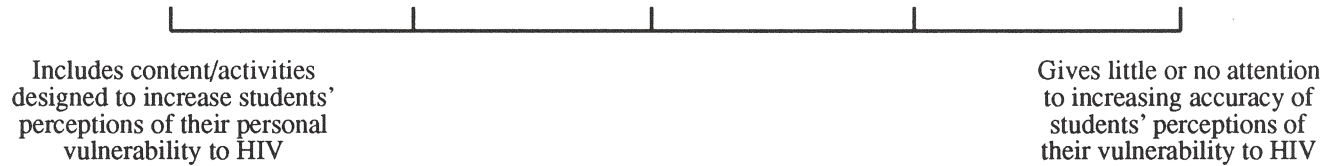
1. Instructional Psychology



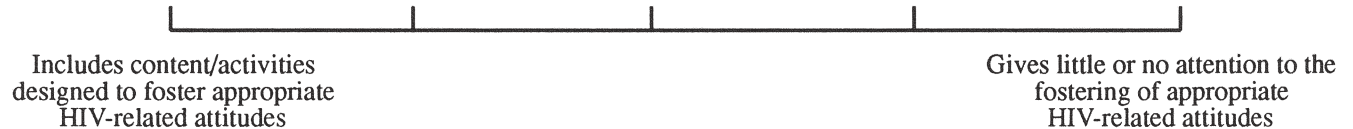
2. Functional Knowledge



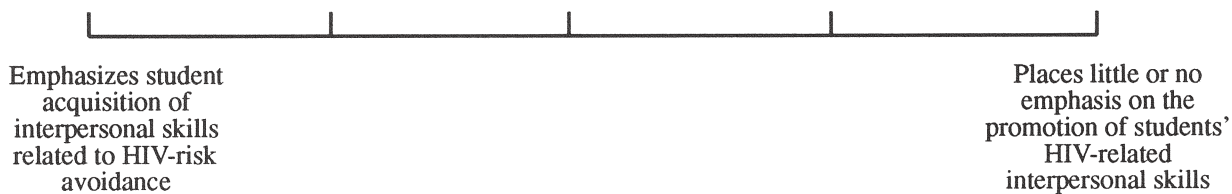
3. Vulnerability Perceptions



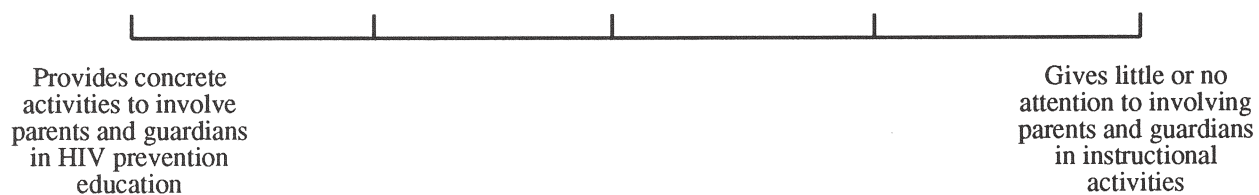
4. HIV-Related Attitudes



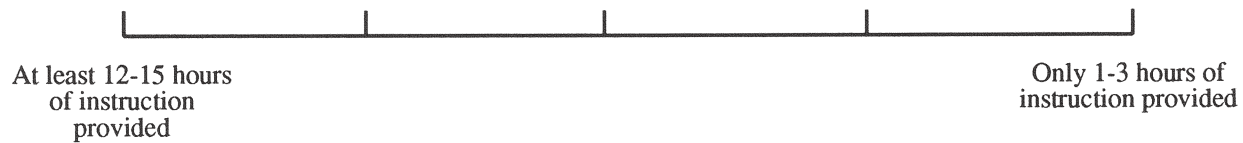
5. Interpersonal Skills



6. Involvement of Parents and Guardians



7. Adequate Duration



SAMPLE CURRICULUM IMPLEMENTATION SURVEY

(This sample form, based on a fictitious HIV curriculum, would need to be modified to match the particular curriculum being appraised.)

DIRECTIONS: Each of the 6 lessons included in the *HIV Skills Curriculum* are listed below. Please indicate (1) which lessons you taught, (2) how much time you spent on each lesson, and (3) whether you made changes to the instructional activities included in each lesson.

Lesson 1: Basic Facts about HIV

Did you teach this lesson: ☐ YES ☐ NO

Approximate time spent: ☐ Less than ½ hour
☐ ½ - 1 hour
☐ More than 1 hour

How did your instruction differ from the lesson plan provided in the teacher's manual?

Lesson 2: Avoiding HIV Infection

Did you teach this lesson: ☐ YES ☐ NO

Approximate time spent: ☐ Less than ½ hour
☐ ½ - 1 hour
☐ More than 1 hour

How did your instruction differ from the lesson plan provided in the teacher's manual?

Lesson 3: Choosing Abstinence

Did you teach this lesson: ☐ YES ☐ NO

Approximate time spent: ☐ Less than ½ hour

☐ ½ - 1 hour

☐ More than 1 hour

How did your instruction differ from the lesson plan provided in the teacher's manual?

Lesson 4: Communication Skills

Did you teach this lesson: ☐ YES ☐ NO

Approximate time spent: ☐ Less than ½ hour

☐ ½ - 1 hour

☐ More than 1 hour

How did your instruction differ from the lesson plan provided in the teacher's manual?

Lesson 5: Refusal Skills

Did you teach this lesson: ☐ YES ☐ NO

Approximate time spent: ☐ Less than ½ hour

☐ ½ - 1 hour

☐ More than 1 hour

How did your instruction differ from the lesson plan provided in the teacher's manual?

Lesson 6: Attitudes toward People with AIDS

Did you teach this lesson: ☐ YES ☐ NO

Approximate time spent: ☐ Less than ½ hour

☐ ½ - 1 hour

☐ More than 1 hour

How did your instruction differ from the lesson plan provided in the teacher's manual?

Overall, how difficult was it to use this curriculum?

- ☐ Extremely difficult
- ☐ Somewhat difficult
- ☐ Slightly difficult
- ☐ Not at all difficult

How could the curriculum be made easier to use?
